Overcoming Obesity: Reminders and Education for Providers in Primary Care

Michelle L. Warren BSN, RN, DNP student

Significance of the Problem

- ❖ Global increase 8-fold from 1975-2016
- ❖ Healthcare cost of $14.1 billion/year
- ❖ Indiana ranks 24th in overweight and obesity rates
- ❖ Site recognition rate of 70.4% with inconsistent management

PICOT Question

In patients between five and 12 years of age (P), how does the implementation of primary care provider reminders and education (I) compared to current practice (C) impact the diagnosis of overweight and obesity, frequency of nutrition and activity counseling, and number of patient referrals as well as follow-up visit recommendations and patient weight, BMI, and zBMI (O) over a 12-week period (T)?

Review of the Literature

Database/Source	Evidence Selected	LOE/Quality	Evidence Selected	LOE/Quality
Cochrane Library	Brown et al. (2019)	I[a]/B[b]	Mead et al. (2017)	I[a]/B[b]
	Loveman et al. (2015)	I[a]/B[b]		
Joanna Briggs Institute	Chai et al. (2019)	I[a]/A[b]	Nguyen (2020)	I[a]/B[b]
	Fong (2020)	I[a]/A[b]	Nnaji (2019)	I[a]/A[b]
PubMed	Farpour-Lambert (2019)	II[a]/B[b]	Resnicow et al. (2016)	II[a]/B[b]
	Fleischman et al. (2016)	II[a]/B[b]	Sim et al. (2016)	II[a]/B[b]
	Forsell et al. (2018)	II[a]/B[b]	Taveras et al. (2017)	II[a]/A[b]
	Jortberg et al. (2016)	VI[a]/A[b]	Taylor et al. (2015)	II[a]/A[b]
	Parra-Medina et al. (2015)	II[a]/B[b]		
TRIP Medical Database	APA (2018)	I[a]/A[b]	UOM, Obesity Guideline Team (2020)	I[a]/A[b]
	SIGN (2010)	I[a]/A[b]		
CINAHL	Canadian Task Force on Preventative Health Care (2015)		Sepulveda et al. (2019)	II[a]/B[b]
Citation Chasing	Gerards et al. (2011)	V[a]/B[b]	USPSTF (2016)	I[a]/A[b]
	NICE (2015)	I[a]/B[b]		

[a] Melynyk & Finout-Overholt; [b] Johns Hopkins

Best Practice

Multi-Faceted Approach
- ❖ Accurate Diagnosis
- ❖ Management based on AAP Algorithm
  - ➢ Nutrition and Activity Education
  - ➢ Frequent Provider Contact
- ❖ Frequent Provider Contact

Implementation

- ❖ Provider Education Session
  - ➢ Criteria for Diagnosis
  - ➢ Accurate Diagnostic Code Entry
  - ➢ Best Practice Evidence
  - ➢ Management Algorithm (including when to refer to onsite behavioral intervention clinic or nutritionist)
- ❖ Nurses placed post-it notes on patient information sheets outside visit rooms when BMI >/= 85th percentile was identified
- ❖ Patient education handouts made available for provider use in both English & Spanish

Evaluation

Primary outcomes: Frequency of diagnosis, referrals, and nutrition and activity education
- ❖ Pre-intervention group compared to intervention group with Chi-square test for independence
- ❖ There was a statistically significant increase in frequency of diagnosis of overweight and obesity.

Frequencies and Chi-Square Results of Primary Outcomes (N = 502)

Source	Pre-intervention		Intervention		X^2	df	p
	n	%	n	%			
Diagnosis	60	54.1	274	70.1%	8.636	1	.003*
Nutrition and Activity Counseling	81	73.0	301	77.0	1.587	1	.208
Referral	12	10.8	65	16.6	2.296	2	.317

*$p < .05$

Conclusion and Recommendations

- ❖ Provider reminders and education contribute to increased recognition and diagnosis of overweight and obesity in children.
- ❖ Future longitudinal research should be conducted to identify if an increase in patient diagnosis contributes to a decrease in patient weight, BMI and zBMI.

VALPARAISO UNIVERSITY